



John E. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

Certified Mail #91 7108 2133 3932 1837 9796

August 19, 2013

Tiffany Jenkins, P.E. Director of Environmental Services
Delaware County Regional Sewer District
101 N Sandusky Street
Delaware, OH 43015

NOTICE OF VIOLATION

**Re: Tartan Fields Wastewater Reuse Facility
NPDES Permit 4MP00008/ OHLANDAPP
Reconnaissance Inspection
Delaware County**

Dear Ms. Jenkins:

This correspondence serves as **Notice of Violation** for Significant Non-Compliance with the permit limits contained in the Land Application Management Plan issued to the Tartan Field Wastewater Reuse Facility in Delaware County, Ohio.

On July 22, 2013, a Reconnaissance Inspection was conducted at the Tartan Fields Wastewater Reuse Facility. Present for the inspection were Mark Chandler, Cory Smith and Walt Thompson representing the Delaware County Regional Sewer District and myself of the Ohio EPA, Central District Office, Division of Surface Water. The purpose of the inspection was to evaluate compliance with the terms and conditions of your Land Application Management Plan (LAMP) and to discuss the plans for achieving compliance with final limits for Total Inorganic Nitrogen (TIN) limits by October 2014.

Findings:

1. **Significant Non-Compliance** - The plant is currently in Significant Non-compliance (SNC) for violations of the E. coli limits contained in the LAMP. A facility is placed in SNC when limits for conventional parameters are exceeded by 40% in any two months in a six month period. In order to be removed from the SNC list, the county must comply with all E. coli limits for three consecutive months. Failure to comply with the terms of conditions of the LAMP is a violation of Ohio Administrative Code (OAC) 3745-42-13. The County has installed a chlorine feed system, to work with the existing ultraviolet disinfection system to facilitate compliance with the E. coli limit.

2. The County will begin work to modify the first aeration tank to create an anoxic zone in the first thirty feet of the aeration tank. A baffle will be installed and the diffusers will be removed from this section of tank. A surface mixer will be installed to provide mixing. This work will begin soon and will allow the County to determine if these modifications are sufficient to meet the TIN limit of 10 mg/l or if additional piping changes will be required before the final limit goes into effect.

Please refer to the Summary of Findings and Comments section of this report for additional information regarding the inspection. If you have any questions or comments concerning the enclosed inspection report, please contact me at (614) 728-3848 or e-mail at mike.sapp@epa.state.oh.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Sapp", written in a cursive style.

Michael Sapp
Compliance and Enforcement Unit
Division of Surface Water
Central District Office

c: Cory Smith w/attachments

ec: Michael Sapp

MS/nsm Tartan Fields 13

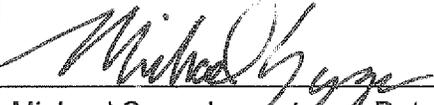
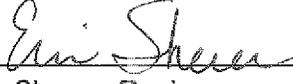
NPDES Compliance Inspection Report

| SECTION A: IDENTIFICATION DATA & SYSTEM CODING | | | | |
|--|------------|-----------------|---------------------|----------------------------|
| Permit # | NPDES # | Inspection Type | Inspector | Facility Type |
| 4MP00008 | OHLANDAPP | RI | S | Public |
| Inspection Date | Entry Time | Exit Time | Notice of Violation | Significant Non-Compliance |
| 7/22/2013 | 9:30 AM | 10:45 AM | Yes | Yes |

| SECTION B: FACILITY DATA | |
|---|----------------------------------|
| Name and Location of Facility Inspected | Permit Effective Date |
| Tartan Fields Wastewater Reuse Facility 10811 Manley Road Delaware, Ohio 43015 | 11/1/2012 |
| | Permit Expiration Date |
| | 10/31/2017 |
| Name(s) and Title(s) of On-Site Representatives | Phone Numbers |
| Mark Chandler, Operations Manager Cory Smith, Operations Supervisor Walt Thompson, Plant Operator | (740) 549-1906 (937) 243-7413 |
| Name and Title of Responsible Official | Phone Number |
| Tiffany Jenkins, Director of Environmental Services/Sanitary Engr | (740) 833-2240 |

| SECTION C: AREAS EVALUATED DURING INSPECTION | | |
|--|--------------------------|--|
| Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated | | |
| S | NPDES Compliance | |
| S | Operations & Maintenance | |
| S | Facility Site Review | |
| S | Collection System | |
| S | Flow Measurement | |
| M | Receiving Waters | Marginal due to SNC for E. coli violations |
| S | Laboratory | |

Comments:

| Signatures | |
|---|--|
|  7/24/13 |  7/31/13 |
| Michael Sapp, Inspector Compliance & Enforcement Division of Surface Water District Office | Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water District Office |

Compliance Data for Tartan Fields Wastewater Reuse Facility between 1/1/2013 to 7/1/2013

Summary

Permit Effluent Limit Violations: 6
 Permit Effluent Code Violations: 0
 Permit Effluent Frequency Violations: 0
 Compliance Schedule Violations: 2

| Permit Violation | | | | | | |
|------------------|---------|-----------|------------|-------|----------------|----------------|
| Reporting Period | Station | Parameter | Limit Type | Limit | Reported Value | Violation Date |
| January 2013 | 601 | E. coli | 1D Conc | 126 | 540. | 1/21/2013 |
| January 2013 | 601 | E. coli | 1D Conc | 126 | 570. | 1/8/2013 |
| January 2013 | 601 | E. coli | 1D Conc | 126 | 380. | 1/9/2013 |
| January 2013 | 601 | E. coli | 1D Conc | 126 | 700. | 1/22/2013 |
| February 2013 | 601 | E. coli | 1D Conc | 126 | 4360. | 2/20/2013 |
| May 2013 | 601 | E. coli | 1D Conc | 126 | 1800. | 5/28/2013 |

| Missing Compliance Schedule Milestones | | | | |
|--|-----------------|------------|---------------|--------------------------------|
| Schedule Due Date | Completion Date | Event Code | Schedule Type | Schedule Milestone |
| October 2013 | | 95999 | Other | Status Report |
| October 2014 | | 5699 | Construction | Final Compliance w/ Eff Limits |

SUMMARY OF FINDINGS AND COMMENTS
Tartan Fields Wastewater Treatment Plant
4MP00008

General

The Tartan Fields WWTP is a conventional activated sludge plant designed to treat an average daily flow of 250,000 gpd. The plant has been designed to serve 550 homes, a golf course and clubhouse and a school. Unit processes at the plant include influent bar screens, extended aeration, final clarification, rapid sand filtration and ultraviolet disinfection. Wastewater is disposed of through land application on the Tartan Fields golf course which provides a total of 250 irrigated acres. A single effluent storage impoundment is provided for 150 days of storage. Solids are transported to Alum Creek WRF for further processing and disposal.

1. The influent flows to the plant currently average 115,000 gpd. The highest daily flow experienced this year was 162,000 gpd. Plant staff indicated that the development tributary to the plant is largely built out.
2. At the time of the inspection all treatment units were functional although one of the final clarifiers was off-line due to low flows. The plant was not constructed with flow equalization capabilities. Two of the three aeration tanks function in series. The third aeration tank was modified to accept high flows. This tank generally fills when the influent flow exceeds 150,000 gpd.
3. Operation of the rapid sand filters has been problematic since they were installed in 1997. The County plans to replace these units with Aqua Diamond cloth filters in the near future.
4. The aeration blowers are operated in an on/off mode of operation (one hour on followed by one hour off).
5. The plant runs best at a MLSS concentration of 750 mg/L which roughly corresponds to a spin test result of 1.75-2%). Sludge is hauled daily in order to maintain the lower solids inventories under aeration. The plant experiences foaming problems when solids concentrations are higher.
6. Flows are measured using an ultrasonic unit over the effluent weir. This unit was last calibrated in April 2013. Effluent samples are collected using a composite sampler. The sampler collects a 24-hour composite sample.
7. The County recently installed a chlorine feed system to facilitate compliance with E.coli limits. The chlorine will be used in conjunction with the ultraviolet disinfection unit. The plant has met all E.coli limits since the chlorine system was installed.

8. The LAMP contains a schedule of compliance to meet a final TIN limit of 10 mg/l on or before October 1, 2014. The plant has reported an average TIN concentration of 17.4 mg/L since April 2013. Plant staff will begin work to modify the first aeration tank to create an anoxic zone in the first thirty feet of the aeration tank. A baffle will be installed and the diffusers will be removed from this section of tank. A surface mixer will be installed to provide mixing. This work will begin soon and will allow the County to determine if these modifications are sufficient to meet the TIN limit of 10 mg/l or if additional piping changes will be required before the final limit goes into effect. Please be aware that the compliance schedule requires a status report on plans to meet the final TIN limit by October 1, 2013.
9. During the inspection, we discussed the requirements for signage at the land application areas. OAC 3745-42-13 contains the following language with respect of signage:

(e) Signs shall be installed at the entrance to each land application site, to inform the public that the land is used for land application of treated sewage. At least one sign shall be posted at each field or site. Each sign shall include notification that:

- (i) All above ground sewage distribution pipes contain "Non-potable Water that is Not Suitable for Human Consumption"; and**
- (ii) If applicable, all nozzles distribute "Non-potable Water that is Not Suitable for Human Consumption".**

These signs should be placed on every hole that receives treated wastewater.